Applicant:
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Date:

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Initiating Factors

- Smoke Inhalation
- Lack of Exercise, Diet, Stress
- Clinical and Subclinical Infections
- Hypertension
- Trauma

Cardiovascular Cell Activation

Free Radical Production
Pseudopod Formation
Adhesion Molecules
Degranulation

- Reduced Perfusion, Ischemia, Thrombosis
- Leukocyte Infiltration, Immune Reaction
- Ox-LDL, oxidative stress
 - MI, Stroke, CV ischemia
 - · Adult respiratory distress syndrome
- Accelerated atheroscierosis, stenosis
- Arthritis, organ transplant rejection
- Alzheimer's
- Diabetes, hypertension
- Venous insufficiency

acute

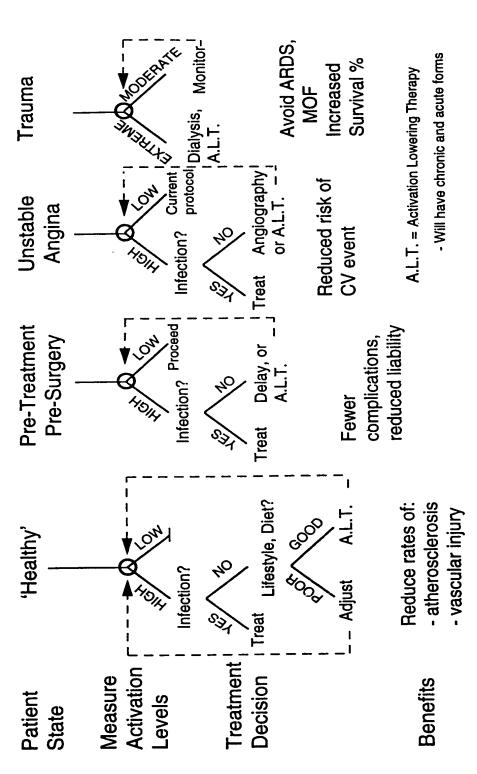
- •
- •

chronic

FIG. I

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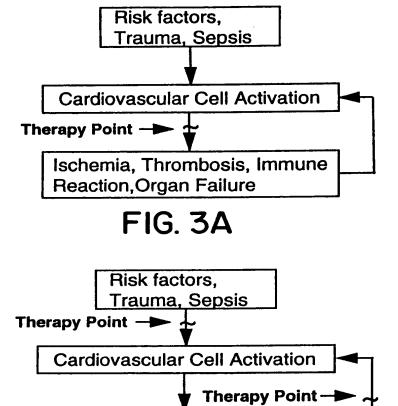


FIG. 3B

Ischemia, Thrombosis, Immune

Reaction, Organ Failure



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Letter Key for peptide origin:

b = bovineh = hamster m = man o = otherr = rat

SR AR TNA NAL ALTPTDDDDK **FPLDDDDK FPVDDDDK** APFDDDDDKI APFDDDDDK **DDDDDK CGVPAIOPVLSGLSR CGVPAIPPVLSGLSR** CGVPAIOPVLSGL **CGVPAIPPVLSGLSR** CGVPSIPPNLS **CGVPAIKPALBFB** MAFLWLVSCFALVGATFG **MLRFLVFASLVLYGHS** MIRALLLSTLVAGALS **CGYPTYEVQHDVSR** TODFPETNAR **DFPETNAR** CGLPANLPQLPR **CGDPTYPPYVTR** CGVSTYAPDMSR **FPVDDDDK** VDDDDK **DSGISPR EEGISSR EAGLNSR GISPR ENGISPR** EHPEHWSYGLRPG VHLSAEEKEA

p chymotrypsinogen A(14-15) p chymotrypsinogen B(14-15) b neochymo A autoactivation(147-9) b neochymo B autoactivation(147-9) b neochymo B autoactivation(148-9) o anionic trypsinogen activation peptide cationic trypsinogen activation peptide 0 b cationic trypsinogen activation peptide h trypsinogen residue (human) h trypsinogen 2 peptide h trypsinogen 3 peptide b chymotrypsinogen A sigtransduction chymotrypsinogen A sigtransduction b chymotrypsinogen B sigtransduction p chymotrypsinogen B sigtransduction p chymotrypsinogen C sigtransduction p chymotrypsinogen D sigtransduction r chymotrypsinogen B sigtransduction r proelastase 1 sigtransduction p proelastase 2 sigtransduction proelastase 2 r proelastase 1 r proelastase 1 p proelastase 2 m proelastase 2A m proelastase 2B p trypsinogen

b trypsinogen m prophospholipase A2 p prophospholipase A2 b prophospholipase A2 o prophospholipase A2 (horse1) o prophospholipase A2 (horse2) m thyrotropin-releasing m gonadtropin-releasing m growth-hormone-releasing m somatostatin m vasotocin

m oxytocin HSQGTFTSDYSKYLDSRRAQDFVQWLMNT m glucagon m bradykinin

HSDGTFTSELSRLRDSARLQRLLQGLV m secretin

ISDRDYMGWMDF SDNNQQGKSAQQGGY

AGCKNFFWKTFTSC

CYIONCPRG CYIONCPLG

RPPGFSPFR

ECG

m cholecystokinin-pancreozymin (C-terml)

m scotophobin m gluthatione

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APVD

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SYSMEHFRWGKPVGKKRRPVKVYPNGAEDELAEAFPLEF p adrenocotricotropin SYSMEHFRWGKPVGKKRRPVKVYPNGAEDESAUAFPLEF m adrenocotricotropin SYSMEHFRWGKPVGKKRRPVKVYPNGEAEDSAQAFPLEF b adrenocotricotropin SYSMEHFRWGKPV m MSH DIGYS p CRP-I (C-reactive protein) p CRP-II (C-reactive protein) **SWESA** p CRP-III not reactive (C-reactive protein) KPOLWP p CRP-IV not reactive (C-reactive protein) LFEVPEVT p CRP-V not reactive (C-reactive protein) VGGSEI p CRP-VI (C-reactive protein) WDFV p CRP-VII (C-reactive protein) NMWDFV LVAGD m leukotaxin (no sequence order) RKPVLYATNGSQDC m leukocyte promotion factor SYSM m ACTH fragment **BMLF** o fMLP (chemotactic factor) TN b chymotrypsinogen A (247-8) o peptidetide cleaved by chymo C SHLVE o peptidetide cleaved at brushborder AKKK o peptidetide cleaved at brsuhborder AAAA o peptidetide cleaved at brushborder KKKK AKKKK o peptidetide cleaved at brushborder o peptidetide cleaved at brushborder KKKKK o peptidetide cleaved at brushborder LWMRFA KKKKKK o peptidetide cleaved at brushborder o peptidetide cleaved at brushborder VAAKIVG o insulin B fragment VCGE o insulin B fragment LCGS o insulin B fragment LVCG o neutrophil chemotactic peptide **ELR** o neutrophil chemotactic peptide **ELRC** o part of NAP-2 **AELR** SSSGEHFEGEKVFHVNVEDENDIQ p pro-carboxypeptidase B p carboxypeptidase A activation KEDFVGHQVLRISVDDEAQVQKVKEL MAGRGGSRVLALCAALAAGGWLLAA r carboxypeptidase E signal peptide KEDFVGHQVLRITAADEAEVQ p pro-carboxypeptidase A p cleavage procarboxypeptide B TTGHSYEK p cleaved F4 procarboxpeptidase B SVLEAQFDSR p cleaved procarboxypeptidase B **HHDGEHFEGEKVFR YVTR** h proelastase **VVGG** h proelastase 2 h proelastase activation sequence **YVTR** o profactor D fragment **AAPPRGR** o profactor D fragment APPRGR STFWAYQPDGDNDPTDYQKYEHTSSPSQLLAPGDYPCVIE r CCK-releasing factor GRGDSP o integrin endothelial (RGD) **GRGESP** o integrin endothelial (RGE) r enterostatin (gut) APGPR r enterostatin (pancreas) vpgpr **FMRF** o mulluscan cardioexcitatory r C-terminal glucagon pancreatic peptide **LRDRDDIA**

r glucagonoma precursor



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r Thyrotropin Re Hormone h composition of aa gliadin h composition of aa gliadin

o proglucagon

o preprogastrin, preproCCK

GLY o pancreatic peptide cleavage produce YPALPEAPGEDASPDDLSRYYASLRHYLDLVTRQRY o PYY (pancreatic peptide

o adrenocorticotropin hormone fragment H
MEHFRW o adrenocorticotropin hormone fragment H
RVYIHP p Angiotensin II fragment
MIHPF o Angiotensin III fragment horse
MYIHPI p Angiotensin III fragment
MN p Angiotensin III fragment
PPGF o bradykinin fragments 1-5
PPGFS o bradykinin fragments 1-6
PPGFSP o bradykinin fragments 1-7

o bradykinin fragments 2-7 o chemotactic factor for eosinophils o chemotactic factor for eosinophils

o fMLP w/ Phe group

o fMLP class o fMLP class

o leucine enkephalin lys
o ser-leu enkephalin-thr
o met enkephalin arg phe
o D-met, pro enkephalinamide
o supports fibroblast attachment
o supports fibroblast attachment

o CCK fragment 30-33

o leutenizing hormone fragment

o alpha-melanocyte stimulatory hormone o delta-melanocyte stimulatory hormone

o beta-casomorphin

o beta-casomorphin fragment 1-3 o D-ala, tyr- fragment 1-5 amide o D-arg, lys fragment 1-4 amide

h hypercalcemia of malignancy factor

o substance P fragment 1-4 o substance P fragment 5-11 o substance P fragment 7-11 o thymopoietin II fragment 32-6

o U5 peptide

h C3a 72-77 fragment

o hydra peptide fragment 7-11 o leukopyrokinin fragment 4-8

o RGD related peptide

o lys-thymosin alpha1 fragment

o responsible for nicks at purine in DNA

r prothrombin precursor 5-9 o alpha1 mating factor fragment

KRNRNNIA HRRQL GLY YY) SYŚM YMEHFRW DRVYIHP VYIHPF RVYIHPI VIHN RPPGF RPPGFS RPPGFSP PPGFSP AGSE **VGSE BMLFF BMMM** VGDE YGGFLK YSGFLT YGGFMRF YMGFP RGDS GRGDTP WMDF LRPG **HTATFK SMEVRGW** YPFVEPIH \mathbf{YPF} **YAFAY** YRFK TRSAW **RPKP OOFFGLM** FFGLM RKDVY **DKWEL** HKGKAR CVIKF FTPRL KQAGDV KEEAE KYK **FLEEI** WHWLQL

EHPG

GGGPPS

GGGPPY